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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/549,346	09/14/2005	Martinus Wilhelmus Blum	NL 030279	6709

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EXAMINER	
CHAUDRY, MUJTABA M	

ART UNIT	PAPER NUMBER
2112	

MAIL DATE	DELIVERY MODE
11/19/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/549,346	BLUM, MARTINUS WILHELMUS	
	Examiner	Art Unit	
	MUJTABA K. CHAUDRY	2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 September 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 September 2005* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9/14/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Application filed 9/14/2005 is received. Preliminary amendment to claims 1-20 is received and entered. Claims 1-20 are considered on the merits.

Oath/Declaration

The Oath filed 9/14/2005 complies with all the requirements set forth in MPEP 602 and therefore is accepted.

Drawings

The drawings are objected to because Figure 3 does not have labels in each of the elements. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The specification filed 9/14/2005 is accepted.

Claim Rejections - 35 USC § 103

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato (USPN 5844918) further in view of Applicant's Admitted Prior Art (AAPA).

As per claim 1, Kato substantially teaches a method of writing an ECC block to a storage medium (i.e., abstract and Figure 4, reference number 22), the method comprising the steps of: dividing the ECC block into a plurality of N block sections (i.e., Figure 4, reference number 14); and successively writing the block sections to the storage medium (i.e., Figure 4, reference number 22). The Examiner would like to point out the Kato teaches (i.e., Figure 5d) that each divided code block comprises a header and a CRC field.

Kato does not explicitly teach always two successive block sections are separated by a combination of a trailing field (TF) following a first one of said two successive block sections and a leading field (LF) preceding a second one of said two successive block sections as stated in the present application.

However, AAPA teaches (i.e., Figure 2) error correction code block ECC1-ECC3 which are separated by RDF and RIF. For example, considering ECC1 and ECC2 (which are two successive blocks) each is separated by a trailing field (RDF1) which follows ECC1 (the first block) and a leading field (RIF2) which precedes ECC2 (the second block). The Examiner would like to point out that although Figure 2 refers to the entire ECC blocks instead of segments of the ECC blocks as depicted in Figure 6, it is an obvious variation that is shown by Kato in Figure 5. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to take the block segmentations of Kato and include a trailing field and a leading field as suggested in AAPA, Figure 2. This modification would have been obvious to one of ordinary skill in the art because one of ordinary skill in the art would have recognized that by segmenting the code block and including trailing and leading fields for the segmented blocks would have increased error detection/correction capabilities since the error coded blocks would be in smaller size.

As per claim 2, AAPA substantially teaches, in view of above rejections, the storage medium is an optical disc (i.e., background).

As per claim 3, AAPA substantially teaches, in view of above rejections, the first block section is preceded by a run-in field (RIF) and wherein the final block section is followed by a run-out field (ROF) (i.e., Figure 2).

As per claim 4, AAPA substantially teaches, in view of above rejections, the storage medium has at least one track having predefined storage zones (Z) each having a predefined storage capacity; wherein the combination of the plurality of N block sections, N-1 sets of trailing field (TF) and leading field (LF), one run-in field (RIF), and one run-out field (ROF) is stored within one of said zones (Z) (i.e., Figures 1 and 2).

As per claim 5, AAPA substantially teaches, in view of above rejections, the block sections are written during a plurality of successive micro-sessions mutually separated by a time interval (i.e., Figure 2). The Examiner would like to point out that the block can be separated into smaller chunks that may have micro-sessions.

As per claim 6, AAPA substantially teaches, in view of above rejections, only one block section is written in a micro-session, together with the corresponding trailing field and the corresponding leading field (i.e., Figure 2).

As per claim 7, AAPA substantially teaches, in view of above rejections, a plurality of block sections are written in a session, together with the corresponding trailing fields and the corresponding leading fields (i.e., Figure 2).

As per claim 8, AAPA substantially teaches, in view of above rejections, plurality is smaller than N, or is equal to N, or is greater than N (i.e., Figure 1).

As per claim 9, AAPA substantially teaches, in view of above rejections, the block sections are written by writing means which are powered from a power capacitor; and wherein the power capacitor is charged during said time intervals and discharged during said micro-sessions (i.e., Figure 2). The Examiner would like to point out that when data is written to an

optical storage medium the process of writing requires power which is discharged via a power capacitor, inherently.

As per claim 10, AAPA substantially teaches, in view of above rejections, the power capacitor is charged from a battery. Inherently, a capacitor is charged via a battery.

As per claim 11, Kato substantially teaches, in view of above rejections, storing information to a storage medium (i.e., Figure 4, reference number 22), the method comprising the steps of: coding a first predetermined amount of data into an ECC block according to a predefined format (i.e., Figure 5); generating at least one leading field (LF) and at least one trailing field (TF) (i.e., AAPA, Figure 2); writing the ECC block by a method according to claim 1.

As per claim 12, Kato substantially teaches a storage medium containing at least one ECC block of coded data stored therein (i.e., Figure 4, reference number 22), said at least one ECC block comprising a plurality of N successive block sections (i.e., Figure 5c).

Kato does not explicitly teach always two successive block sections are separated by a combination of a trailing field (TF) following a first one of said two successive block sections and a leading field (LF) preceding a second one of said two successive block sections as stated in the present application.

However, AAPA teaches (i.e., Figure 2) error correction code block ECC1-ECC3 which are separated by RDF and RIF. For example, considering ECC1 and ECC2 (which are two successive blocks) each is separated by a trailing field (RDF1) which follows ECC1 (the first block) and a leading field (RIF2) which precedes ECC2 (the second block). The Examiner would like to point out that although Figure 2 refers to the entire ECC blocks instead of

segments of the ECC blocks as depicted in Figure 6, it is an obvious variation that is shown by Kato in Figure 5. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to take the block segmentations of Kato and include a trailing field and a leading field as suggested in AAPA, Figure 2. This modification would have been obvious to one of ordinary skill in the art because one of ordinary skill in the art would have recognized that by segmenting the code block and including trailing and leading fields for the segmented blocks would have increased error detection/correction capabilities since the error coded blocks would be in smaller size.

As per claim 13, AAPA substantially teaches, in view of above rejections, the storage medium being an optical disc (i.e., background).

As per claim 14, AAPA substantially teaches, in view of above rejections, containing a run-in field (RIF) before the first block section of said at least one ECC block and a run-out field (ROF) behind the last block section of said at least one ECC block (i.e., Figure 2).

As per claim 15, AAPA substantially teaches, in view of above rejections, at least one track having predefined storage zones (Z) each having a predefined storage capacity; wherein a sequence consisting of said run-in field (RIF), said plurality of N block sections and N-1 sets of trailing field (TF) and leading field (LF), and said run-out field (ROF) is contained in one of said zones (i.e., Figures 1 and 2).

As per claim 16, AAPA substantially teaches, in view of above rejections, steps of: a] recognizing a run-in field (RIF) as signaling the beginning of an ECC block (i.e., Figure 2); b] reading a block section until a trailing field (TF) is reached as signaling the end of the block section; c] recognizing a leading field (LF) as signaling the beginning of a subsequent block

section; d] repeating steps [b]-[c] until in step [b] a run-out field (ROF) is reached as signaling the end of the ECC block; e] combining the data of the respective block sections read between said RIF and said ROF so as to reconstruct an ECC block; f] decoding the reconstructed ECC block; g] outputting the decoded data (i.e., Figure 2 of AAPA and Figure 4 of Kato).

As per claim 17, AAPA substantially teaches, in view of above rejections, the disc drive apparatus being designed to perform the method according to claim 1 (i.e., background).

As per claim 18, Kato substantially teaches, in view of above rejections, an encoder (i.e., Figure 4, reference number 5); writing means for writing data from the encoder to an optical disc (i.e., AAPA, background); a controller capable of controlling the writing means (i.e., Figure 4, reference number 12); wherein the controller is designed to control the writing means to be active in writing data to disc during micro-sessions and to be inactive during time intervals between successive micro-sessions (i.e., Figure 4, reference number 22). The Examiner would like to point out that the block can be separated into smaller chunks that may have micro-sessions.

As per claim 19, AAPA substantially teaches, in view of above rejections, a power capacitor for feeding the writing means during said micro-sessions; and a power supply, preferably a battery, for charging the power capacitor during said time intervals between successive micro-sessions. The Examiner would like to point out that the block can be separated into smaller chunks that may have micro-sessions and the writing to an optical medium require the use of a power supply along with a power capacitor, inherently.

As per claim 20, Kato and AAPA substantially teaches, in view of above rejections, a disc drive apparatus for reading information from a storage medium containing at least one

ECC block of coded data stored therein (i.e., Kato, Figure 4, reference number 24), said at least one ECC block comprising a plurality of N successive block sections (i.e., AAPA, Figure 1); wherein two adjacent block sections are separated each time by a combination of a trailing field (TF) behind a first one of said two adjacent block sections and a leading field (LF) before a second one of said two adjacent block sections (i.e., AAPA, Figure 2); the disc drive apparatus being designed to perform the method according to claim 16 (see claim 16).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Additional pertinent prior arts are included herein for applicants review.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. MUJTABA K. CHAUDRY whose telephone number is (571)272-3817. The examiner can normally be reached on Mon-Fri 9-7:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques Louis-Jacques can be reached on 571-272-6962.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/MUJTABA K CHAUDRY/
Primary Examiner, Art Unit 2112